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forming a storage capacitor for each pixel electrode of which a first end is connected to the pixel electrode and a second end is commonly connected, and the conductive interlayer being disposed between an interlayered insulation layer, which is disposed on said switching element, and said pixel electrode in a lamination structure of said electro-optical device and functioning as a part of an electrode constituting the storage capacitor.

#### REMARKS

Claims 1-2, 4-7, and 9-33 are pending in this application. By this Amendment, claims 1, 4, 6, 9, 23, 32 and 33 are amended. Claims 3 and 8 are canceled without prejudice to or disclaimer. Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested.

The attached Appendix includes marked-up copies of each rewritten paragraph (37 C.F.R. §1.121(b)(1)(iii)) and claim (37 C.F.R. §1.121(c)(1)(ii)).

The Office Action objects to the title of the invention as not being descriptive. In reply, Applicant has amended the title to obviate this objection.

The Office Action has rejected claims 4 and 8-14 under 35 U.S.C. §112, second paragraph, as being indefinite. In response, Applicant has amended the claims to obviate this rejection.

The Office Action has rejected claims 1-5 under 35 U.S.C. §102(b) as being anticipated by Sato (U.S. Patent No. 6,081,305); claims 6-33 under 35 U.S.C. §103(a) as being unpatentable over Sato; claims 1-33 under 35 U.S.C. §103(a) as being unpatentable over Matsushima (U.S. Patent No. 6,141,066); and claims 1-33 under 35 U.S.C. §103(a) as being unpatentable over Sato (U.S. Patent No. 6,034,749) (hereinafter "Sato '749"). Applicant respectfully traverses the rejections.

In particular, Applicant asserts that neither Sato, Matsushima nor Sato '749 disclose or suggest an electro-optical device including a conductive interlayer that electrically connects a corresponding switching element and a corresponding pixel electrode where the conductive interlayer being disposed between an interlayered insulation layer, which is disposed on said switching element, and said pixel electrode in a lamination structure of said electro-optical device

and functions as a part of an electrode constituting the storage capacitor, as recited in independent claim 1, and similarly recited in independent claims 23, 32 and 33.

Further, Applicant asserts that neither Sato, Matsushima nor Sato '749, disclose or suggest an electro-optical device including first, second and third conductive layers, formed in that order, the third conductive layer having a resistance which is lower than a resistance of the first conductive layer, one interlayered insulation layer being disposed between the first and second layers and another interlayered insulation layer being disposed between the second and third conductive layers, a peripheral circuit which is provided with leads comprising a first, second and third conductive layers and drives each switching element peripheral circuit having parallel leads in which a lead comprising the first conductive layer and a lead comprising the second conductive layer electrically connected in parallel with respect to both ends of the parallel leads, as recited in independent claim 6.

Sato discloses a liquid crystal light valve used for a projection type display where in a pixel circuit MOS transistors 1a and holding capacitors 1b are arranged in M lines in a horizontal direction and in N rows in a vertical direction respectively (See Fig. 9). The scanning signals and brightness signals are inputted to the gate electrodes and the drain electrodes of the MOS transistors through first signal lines and second signal lines, respectively, and each of the source electrodes is connected to one end of a holding capacitor 1b and 1n of a liquid crystal element 1c. See for example, col. 4, lines 20-35.

On the contrary, and in contrast to the claimed invention, Sata fails to disclose or suggest an electro-optical device including a conductive interlayer that electrically connects the corresponding switching element and corresponding pixel electrode where the conductive interlayer functions as a part of an electrode constituting the storage capacitor, as recited in independent claim 1 and similarly recited in independent claims 23, 32 and 33. Further, Sata fails to disclose or suggest an electro-optical device including a peripheral circuit which is provided with leads comprising the first, second and third conductive layers, and drives each switching element, the peripheral circuit

having parallel leads in which a lead comprising the first conductive layer and a lead comprising the second conductive layer electrically connected in parallel with respect to both ends of the parallel leads, as recited in independent claim 6.

Matsushima discloses a liquid crystal display device where a lot of parallel gate bus wirings (scanning lines) which are connected to the gate driving circuit are provided to the TFT array section. Further, a lot of parallel source bus wirings (signal lines) which are connected to the source driving circuit are provided to the TFT array section so as to intercept perpendicularly to the gate bus wirings. Additionally, an additional capacity common wiring is provided to the TFT array section of the liquid crystal display device so as to be parallel with the gate bus wiring.

However, Matsushima fails to disclose the features of independent claims 1, 6, 23, 32 and 33 as described above.

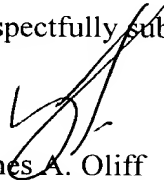
The disclosure of Sato '749 is similar to Sato, and therefore the assertions made regarding Sato is equally applicable to Sato '749.

Accordingly, Applicant submits that independent claims 1, 6, 23, 32 and 33 define patentable subject matter. Claims 2 and 4-5 depend from independent claim 1, claims 7 and 9-22 depend from independent claim 6, claims 24-31 depend from independent claim 23, and therefore, also define patentable subject matter. Accordingly, Applicant requests that objections and rejections under 35 U.S.C. §112, second paragraph, 35 U.S.C. §102(b) and 35 U.S.C. §103(a) be withdrawn.

In view of the foregoing amendments and remarks, Applicant submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-2, 4-7 and 9-32 are earnestly solicited.

Should the Examiner believe anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



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Attachment:  
Appendix

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**DEPOSIT ACCOUNT USE  
AUTHORIZATION**

Please grant any extension  
necessary for entry;  
Charge any fee due to our  
Deposit Account No. 15-0461

## APPENDIX

## Changes to Title:

The following is a marked-up version of the amended title:

ELECTRO-OPTICAL DEVICE WITH CONDUCTIVE INTERLAYER HAVING A ROLE  
OF A CAPACITOR ELECTRODE, METHOD FOR MAKING THE SAME, AND  
ELECTRONIC APPARATUS~~ELECTRO-OPTICAL DEVICE, METHOD FOR MAKING~~  
~~THE SAME, AND ELECTRONIC APPARATUS~~

## Changes to Claims:

Claims 3 and 8 are canceled.

The following is a marked-up version of the amended claims:

1.     (Amended) An electro-optical device, comprising:
  - a plurality of scanning lines and a plurality of data lines;
  - a combination of a switching element and a pixel electrode provided corresponding to each crossing between the scanning lines and the data lines, each pixel electrode being provided with a storage capacitor of which a first end is connected to the pixel electrode and a second end is commonly connected;
    - a conductive interlayer that electrically connects the corresponding switching element and the corresponding pixel electrode, the conductive interlayer being disposed between an interlayered insulation layer, which is disposed on said switching element, and said pixel electrode in a lamination structure of said electro-optical device and functioning as a part of an electrode constituting the storage capacitor; and
    - a peripheral circuit containing leads that comprises the same layer as the conductive layer constituting the conductive interlayer, and drives the switching element.
4.     (Amended) The electro-optical device according to claim 1,
  - the conductive interlayer having a light-shading effect, and

part of light which passes through or is reflected by the pixel electrodes being regulated by the conductive interlayers.

6. (Amended) An electro-optical device, comprising:

first, second, and third conductive layers, formed in that order, the third conductive layer having a resistance which is lower than a resistance of the first conductive layer, one interlayered insulation layer being disposed between the first and second layers and another interlayered insulation layer being disposed between the second and third conductive layers;

a plurality of scanning lines comprising the first conductive layer;

a plurality of data lines comprising the third conductive layer and formed in a generally perpendicular manner relative to the scanning lines so as to cross the plurality of scanning lines;

a combination of a switching element and a pixel electrode provided corresponding to each crossing between the scanning lines and the data lines;

a conductive interlayer comprising the second conductive layer that electrically connects the switching element and the corresponding pixel electrode; and

a peripheral circuit which is provided with leads comprising the first, second, and third conductive layers and drives each switching element, the peripheral circuit having parallel leads in which a lead comprising the first conductive layer and a lead comprising the second conductive layer are electrically connected in parallel with respect to both ends of the parallel leads.

9. (Amended) The electro-optical device according to claim 8, the parallel leads being branched from one lead, which comprises the third conductive layer, and being used in an intersection with another lead, which is different from said one lead and comprises the

~~third conductive layer leads comprising the third conductive layer and being used in intersections with other leads different from the leads comprising the third conductive layer.~~

23. (Amended) An electro-optical device, comprising:

a plurality of scanning lines and a plurality of data lines;

a combination of a switching element and a pixel electrode provided corresponding to each crossing between the scanning lines and the data lines, each pixel electrode being provided with a storage capacitor of which a first end is connected to the pixel electrode and a second end is commonly connected;

a conductive interlayer that electrically connects the switching element and the corresponding pixel electrode, the conductive interlayer being disposed between an interlayered insulation layer, which is disposed on said switching element, and said pixel electrode in a lamination structure of said electro-optical device and functioning as a part of an electrode constituting the storage capacitor;

a peripheral circuit for driving the switching element; and

leads connected to the peripheral circuit that comprise the same layer as a conductive layer which constitutes the conductive interlayer.

32. (Amended) A method for making an electro-optical device comprising a plurality of scanning lines, a plurality of data lines, and a combination of a switching element and a pixel electrode provided at a position corresponding to each crossing between the scanning lines and the data lines, the method comprising:

forming the switching element at the position corresponding to each crossing between the scanning lines and the data lines;

forming a conductive interlayer connected to the switching element and leads used in a peripheral circuit for driving the switching element, by using the same conductive layer; ~~and~~

forming the pixel electrode connected to the conductive interlayer; and  
forming a storage capacitor for each pixel electrode of which a first end is  
connected to the pixel electrode and a second end is commonly connected, and the  
conductive interlayer being disposed between an interlayered insulation layer, which is  
disposed on said switching element, and said pixel electrode in a lamination structure of said  
electro-optical device and functioning as a part of an electrode constituting the storage  
capacitor.

33. (Amended) A method for making an electro-optical device comprising a plurality of scanning lines, a plurality of data lines, and a combination of a switching element and a pixel electrode provided at a position corresponding to each crossing between the scanning lines and the data lines, the method comprising:

after forming the scanning lines and leads used in a peripheral circuit for driving the corresponding switching element by using the first conductive layer, and forming the switching element at the positions corresponding to each crossing between the scanning lines and the data lines;

forming a conductive interlayer connected to the switching element and leads used in a peripheral circuit for driving the corresponding switching element, by using a second conductive layer;

forming leads used in the data lines and the peripheral circuit by using a third conductive layer; ~~and~~

forming the pixel electrode connected to the conductive interlayer; and  
forming a storage capacitor for each pixel electrode of which a first end is  
connected to the pixel electrode and a second end is commonly connected, and the  
conductive interlayer being disposed between an interlayered insulation layer, which is  
disposed on said switching element, and said pixel electrode in a lamination structure of said



electro-optical device and functioning as a part of an electrode constituting the storage capacitor.